APPENDIX E
SUMMARY OF INITIAL DESIGN CONCEPT REPORT COMMENTS



JACKIE NOBLITT, PE STANLEY CONSULTANTS EMAIL: noblittjackie@stanleygroup.com PHONE NO. 602 333 2401 I-17, JCT. SR 179 TO I-40 ACTION CODE
A Will Comply
B Consultant/Designer to evaluate
C ADOT Team to Evaluate
D No Further Action 17 YV 298 H6960 01L NH-017-B(AUC) ADOT PROJECT NO: FED. PROJECT NO. DESIGNER/ CONSULTANT: PROJECT NAME: PRAKASH KAMDAR, PE ROADWAY PREDESIGN EMAIL: pkamdar@azdot.gov PHONE NO. 602 712 7945 INITIAL DESIGN CONCEPT REPORT AUG. 15, 2011 (Various - See Below) SEPT. 15, 2011

COMMENT DUE DATE: REVIEWED BY:

SUBMITTAL:

ADOT PROJECT MANAGER

Preliminary recommendations for wildlife crossing structures are presented in the Wildlife Accident Reduction Report (December 2011). The Final DCR will include the Wildlife Accident Reduction Report as an appendix. The Final EA also includes wildlife crossing recommendations and related mitigation measures. The Final DCR includes construction cost estimates for the recommended wildlife crossing structures and wildlife fencing. Note:

REMARKS / RESPONSE	The Final DCR will include text stating that an exception from the major projects requirement will be required.	A brief description of these alternatives will be added.	Will revise text.
ACTION	A	4	Α
COMMENT	Clarification requested: Estimated cost. The estimated cost is over \$500 million, so this project will be classified as a Major Project per definition by FHWA. We will have to prepare an exception from the major projects requirements in order for FHWA to be able to sign the environmental document.	Tech editing: Preferred alternatives. The executive summary does not provide preferred alternatives for SR 179 TI or JW Powell (Airport) TI. Should these also be included in the summary?	Tech editing: First sentence – there is only one primary objective so change the sentence to a singular tense.
SECTION/ PAGE	Executive	Executive	1.4/3
COMM. NO.	1.1	1.2	1.3
REVIEWER	Karen King/ Alan Hansen (FHWA)	Karen King/ Alan Hansen	Karen King/ Alan Hansen

SUMMARY OF COMMENTS ADOT Project No. 17 YV 298 H6960 01L Federal Project No. NH-017-B(AUC) I-17, Jct. SR 179 to I-40







REMARKS / RESPONSE	City of Flagstaff will be added.	Projects are described as they appear in ADOT's database for consistency with past references. The remainder of the chapter provides detailed information on existing conditions.	This passage will be revised to read: "Existing roadside drop-offs are steep and in excess of several hundred feet, and cut sections exceed 100 feet in some areas with slopes of 0.75 horizontal to 1 vertical. There is guardrail on the outside of the southbound roadway where the drop-offs are close to the roadway. The median width is reduced in this area and a median barrier exists from MP 311.7 to MP 312.6."	Text will be revised to read "In most areas, shoulder drop-offs are less than four inches, although some areas have as much as eight inches of shoulder drop-off."
ACTION	A City	D AD AD The	The second with with wide wide	A Tey sho inol mu
AC	s s	a od	t et ook	
COMMENT	Tech editing: Was City of Flagstaff also in attendance? If so, please also include them in addition to FMPO as they are separate entities.	Clarification requested: The list of projects does not adequately describe the project characteristics and in some cases the location is vague or the project is only for an aspect of development (e.g. ROW, typical sections). Although it may be difficult to obtain more specific criteria for older projects it would be helpful to clean up the list, only include construction projects, and improve the description if information available (e.g. pavement preservation, mill and replace 3", Traffic Interchange Improvement, etc). There are also several acronyms used that may not be recognizable to all audiences (e.g. ACFC, BST)	Clarification requested: "The terrain in the overlook area is more severe than elsewhere within the project limits. Existing drop-offs are steep and in excess of several hundred feet, and cut sections exceed 100 feet in some areas with slopes of 0.75 horizontal to 1 vertical." Is this describing the terrain within the overlook parking area or within the roadway segment? If the latter, are there guardrail or other mitigations installed within the section to prevent run off road crashes or is there adequate clear zone?	"In most areas, shoulder drop-offs are less than four inches. Some areas have as much as eight inches of shoulder drop-off."
SECTION/ PAGE	1.4.1/3	1.5	1.5.1/6	1.5.8/15
COMM. NO.	1.4	1.5	1.6	1.7
REVIEWER	Karen King/ Alan Hansen	Karen King/ Alan Hansen	Karen King/ Alan Hansen	Karen King/ Alan Hansen

ACTION CODE A Will Comply B Consultant/Designer to evaluate C ADOT Team to Evaluate D No Further Action



REVIEWER	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
Karen King/ Alan Hansen	1.8	2.1.4/21	Tech editing: J.W. Powell. The first sentence states that roundabouts were evaluated at this Traffic Interchange but they are not part of the LOS analysis in Table 21.	Q	Roundabout analysis was prepared by AECOM as part of the ADOT project H4134 01C, Airport Road TI (J.W. Powell Blvd) Intersection Improvement. The results were not made available for this study; reference will be deleted.
Karen King/ Alan Hansen	1.9	2.3/28	Tech editing: Conclusion. Provide a definition for KDT since some readers may only read the conclusion and not refer to the body of the document.	∢	Bullets 7 and 8 will be combined and definitions will be added for AADT, K, D, & T.
Karen King/ Alan Hansen	1.10	2.3/28	Tech editing: Conclusion. For readability, suggest moving the AADT statements for 2007 and projected 2035 next to each other.	∢	AADT information will be presented consecutively.
Karen King/ Alan Hansen	1.11	2.3/28	Tech editing: Conclusion. In the last bullet, last sentence, add "per Highway Capacity Manual"	٧	Will add text.
Karen King/ Alan Hansen	1.12	3.1/29	Rewrite suggestion: Include a milepost reference for Woods Canyon	A	Will add MP reference.
Karen King/ Alan Hansen	1.13	3.3/29	Tech editing: Throughout this section there is reference to scenic integrity but no definition as to what the terminology is in reference to. Suggest including "as defined by the Coconino National Forest Management Plan" whenever there is reference to scenic integrity or provide a definition in the introduction of the mainline alternative analysis.	٧	A reference to the Coconino National Forest Management Plan will be included.

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ADOT Project No. 17 YV 298 H6960 01L
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REMARKS / RESPONSE	Text will be revised to read "Continuous concrete median barrier is undesirable in long stretches of rural highways since it limits crossover or turnaround movements by emergency vehicles."	Text will be revised as suggested.	Text will be revised as suggested.
ACTION	∢	٧	⋖
COMMENT	Rewrite suggestion: "Continuous median barrier is undesirable in long stretches or rural highways for several reasons. Although intended to prevent more severe head-on crashes, barrier itself is a hazard and may add stress to the driving task." We should differentiate that we are talking about continuous concrete barrier as this statement may not be true for other barrier such as cable median barrier which is commonly used on rural highways. Also I would advise against using the term hazard when talking about median barrier.	Rewrite suggestion: "Median barrier would be required and would present a roadside hazard only where required at structures and other spot locations" since the barrier is meant to protect driver from a more serious crash. Suggestion "Median barrier would only be required at spot locations, such as bridge structures, to protect drivers from a more serious crash."	Rewrite suggestion: " This issue [guardrail treatment] will be addressed during final design; by that time, an ADOT sub-group formed to address the issue on a statewide basis will likely have finalized its recommendations." This seems specific for a DCR and I would recommend being consistent with the Environmental Mitigation #17 "and treated materials would be considered for guardrails to avoid shiny galvanized surfaces. Aesthetics for project elements would be designed in accordance with the most current edition of the 4 Agency Guidelines for Highways on Bureau of Land Management and Forest Service Lands."
SECTION/ PAGE	3.4.2/42&43	3.4.3/44	4.3/63
COMM. NO.	1.14	1.15	1.16
REVIEWER	Karen King/ Alan Hansen	Karen King/ Alan Hansen	Karen King/ Alan Hansen

ACTION CODE A Will Comply B Consultant/Designer to evaluate C ADOT Team to Evaluate D No Further Action



0)	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
4.3.2/64 Tech e Guideli	Tech e Guideli referen	Tech editing: 4th para – Please specify which Design Guidelines this is referring to and include a section reference (e.g. ADOT Roadway Design Guidelines)	٩	"Design guidelines indicate" will be replaced with "Section 202.2 of ADOT's RDG indicates"
4.3.3/66 Tech edi Horizonta AASHTO variance.	Tech el Horizor AASHT variano	Tech editing: Red Hill Scenic Overlook – 3 rd para. Horizontal SSD is an ADOT design variance, not an AASHTO design exception. Change exception to variance.	O	Horizontal stopping sight distance is one of three components of the sight distance (horizontal, vertical, intersection) and is an AASHTO controlling criteria.
4.3.4/67 Design For the Should method and still deferre	Design For the Should method and still deferre	Design question: Median Grading MP 314.6 to 337.4 – For the sections with a 4:1, how wide would the Shoulder Wedge need to be and is there any other method that would provide a traversable pavement edge and still allow for 6:1 median slopes. Comment can be deferred to design stage.	∢	The paragraph will be rewritten to read: "While an attempt was made to meet each of these guidelines, the proposed design of superelevated segments with a median width of 76 feet between MP 314.6 and MP 337.4 does not accommodate a drainage ditch below the pavement structural section. In these segments, the northbound and southbound vertical alignments were designed to result in median slopes of 4.1 maximum (thus avoiding the need for barrier) while matching the existing roadway profile as closely as possible (thus reducing earthwork)."
4.21/96 Clarific crossing crossing crossing by inclu Lo Trail Lo	Clarific crossing crossing crossing by inclu Trail Lo	Clarification: Table 50 – FUTS. Identifies three trail crossing, but ADOT only recommends two of the crossings. Recommend making this a clearer statement by including "not recommended by ADOT" in the title for Trail Location for MP 337.8, Sheep Crossing.	Ą	Will comply.

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ADOT Project No. 17 YV 298 H6960 01L
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REMARKS / RESPONSE	Will revise text.	Will comply.	Will revise text.	The last paragraph will be eliminated.	The new name will be added.	The required lighting levels for a roundabout were mis-stated; the proposed roundabout intersections should be lit at 1.3 to 2.0 times the lighting level of the signalized intersection alternative. However, the additional cost of the roundabout alternative with roadway lighting factored in is still lower than the signalized alternative.
ACTION	٨	A	∢	٧	٧	∢
COMMENT	Sect 1.1, para 2: The study is located within ADOT's Flagstaff District except for the small portion south of the SR179 overpass in Prescott District. (MP 299 is the district boundary.)	Sect 1.1, para 5: SR89A provides alternate access between the SR179 TI and J. W. Powell Blvd TI except for vehicles over 50' in length (SR89A MP 386.8 – 398.1).	Sect 1.5, 3 rd bullet item: The posted speed is 65 mph to MP 340 NB (then 45) and 45mph to MP 339.86 SB (then 65).	Last para: SR89A overlaps I17 (a duplicate route) from the Airport (J.W Powell) TI to MP 340. Beulah Blvd is a City of Flagstaff route north of J.W Powell Blvd.	Table 4: Isn't Qwest now Century Link?	Under signalized intersection alternative, last 3 bullet items: Do higher bridge and traffic signal costs actually offset the high cost of roundabouts, and are increased lighting levels actually required for signalized intersections (higher than for roundabouts)?
SECTION/ PAGE	₽	₽	4	8	6	83
COMM. NO.	2.1	2.2	2.3	2.4	2.5	2.6
REVIEWER	John Harper (ADOT Flagstaff District)	John Harper	John Harper	John Harper	John Harper	John Harper

ACTION CODE



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REVIEWER	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
John Harper	2.7	83	Under roundabout intersection alternative, last 2 bullet items: Same question as item no. 6 above, and is the lighting pollution reduction quantifiable and significant?	٥	Lighting pollution is critical in this area but the incremental difference is not a critical factor in the alternative selection. The last bullet will be eliminated.
John Harper	2.8	06	Under bridge anti-icing technology, para 1, last sentence: As a result, a system may be desired to prevent ice.	∢	The word "required" will be changed to "desired"
John Harper	2.9	85	Sect 4.18.1, 3 rd bullet item: I-40?	A	The reference to I-40 will be deleted.
John Harper	2.10	93	Under closed-captioned TV monitoring: Please add a location NB, between Stoneman Lake TI and Woods Canyon Bridge. Winter problems usually occur between MP 309 and 312.	A	Will add a new location south of the scenic overlook at MP 311.7.
John Harper	2.11	94	Recommended DMS locations (bullet items), top of column 1: The updated (7-28-11) list of district proposed 117 DMS locations is NB MP 305, SB MP 324, and SB 340.3 (just north of the study area). A DMS at NB MP 334 is part of the DMS Phase 9 project (in design for FY12).	V	The updated District recommendations will be shown in the Final DCR. The DMS recommended at MP 305 will be shown at MP 303.4 to provide advance notice of the of the existing chain-up area at MP 304.7.
John Harper	2.12	96	Sect 4.22: Should the (Transportation Enhancement) H7740-Woods Canyon Bridge to Munds Park TI (MP 316.8 – 322.72) elk fence construction project (contract awarded 6/17/11, construction started 7/21/11) be mentioned in this section?	A	The elk fence project will be noted.
John Dalby (ADOT Flagstaff District)	3.1		Is there a reason for <u>not</u> listing the Glossary of Acronyms and Abbreviations in the Table of Contents? (A user that overlooks it won't know that it exists.)	4	The Glossary of Acronyms and Abbreviations will be listed in the Table of Contents.

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REMARKS / RESPONSE	This will be reflected in the Final DCR.	A reference to controlled-access will be added.	Page reference will be revised.	Will add page reference.	Page reference will be revised.	Will add page reference.
ACTION	⋖	∢	∢	∢	4	A
COMMENT	Second (**) note to Table 44: The Fox Ranch TI UP bridge rail is being replaced with a parapet and pedestrian (elk?) fence as part of the H7740 Woods Canyon TI – Munds Park TI elk fence project that is currently in construction (contract awarded 6/17/11; construction started 7/21/11).	Under 3.3 Mainline Corridor Realignment Alternatives (3.3.1 Introduction 2 nd Paragraph): This paragraph discusses the guidance for the appropriate maximum grade for a given design speed based on terrain classification. Verify if "controlled access highways" should be included along with the terrain classification.	Under Alternative WC-1 (1st Paragraph): It shows a sentence "This alternative is depicted on Figure 20 on page 49. Verify if "page 49" should be changed to "page 48".	Under Alternative WC-2 (1st Paragraph): It shows a sentence "This alternative is depicted on Figure 21". Verify if "on page 49" should be included.	Under Alternative WC-3A and WC-3B (3" Paragraph): It shows a sentence "This alternative is depicted on Figure 22 on page 51". Verify if "page 51" should be changed to "page 50".	Under Alternative WC-3A and WC-3B (3 rd Paragraph): It shows a sentence "This alternative is depicted on Figure 23". Verify if "on page 51" should be included.
SECTION/ PAGE	87	29	45	45	45	45
COMM.	3.2	1.4	4.2	4.3	4.4	4.5
REVIEWER	John Dalby	Pat Mahoney (ADOT Roadway Reviewer)	Pat Mahoney	Pat Mahoney	Pat Mahoney	Pat Mahoney

ACTION CODE
A Will Comply
B Consultant/Designer to evaluate
C ADOT Team to Evaluate
D No Further Action



REMARKS / RESPONSE	Will add page reference.	The three JW Powell TI alternatives will be included in Section 4.12.12	This text has been deleted and the comment no longer applies.	This text has been deleted and the comment no longer applies.	This text has been deleted and the comment no longer applies.	Will revise.
ACTION	4	∢	۵	٥	Q	∢
COMMENT	Under Alternative WC-4 (1st Paragraph): It shows a sentence "This alternative is depicted on Figure 24". Verify if "on page 52" should be included.	Under 4.12.12 JW Powell (Airport) TI: The Power Point Presentation showed 3 alternatives for this location. Verify if these alternatives should be included in the DCR.	Under MP 313.5 – MP 340.0 (4 th Bullet): It shows SB MP 336.51 to MP 336.69 – 0.04% greater than the maximum. Verify the 0.4% shown. On page 100 in table, it shows two sets of SB MP 336.51 to MP 336.69. One set shows a 4.04% proposed value and the other set shows a 3.30% value.	Under Table for Design Exception Request: In this table it shows SB MP 335.74 to MP 335.79 and SB MP 335.51 to MP 336.69 twice. Verify which two are correct.	Under Table for Design Variance Request: It shows locations at SB MP 308.38 to MP 308.55 and NB 311.42 to MP 311.49. These two locations are not shown under the Minimum Highway Grade Above 4000 ft on page 98 & 99. Verify if these two locations should be included on page 98 & 99.	Curve Information Bottom Sheet: There are two curve "N13's' shown with curve information. Verify if one of the curve N13's shown should be changed to "S13".
SECTION/ PAGE	45	98	86	100	100	Dwg No. 51
COMM. NO.	4.6	4.7	8.	4.9	4.10	4.11
REVIEWER	Pat Mahoney	Pat Mahoney	Pat Mahoney	Pat Mahoney	Pat Mahoney	Pat Mahoney

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		T			
REMARKS / RESPONSE	The total new right-of-way required from private owners is 6.3 acres. The Munds Park TI was omitted from the detailed estimate since the acquisition cost estimate was not available for the IDCR.	An update to the estimate of the total new right-of-way required from the private ownership in the northeast quadrant of Munds Park TI will be provided in the Final DCR.	60% plans for SR 89A project are being developed. A note referencing the SR 89A project has been added to the I-17 Final DCR plan sheet.	The noise consultant has modeled the wall offset 20' from the R/W line. The mitigated noise levels and noise level reduction values meet the criteria; however, the cost per benefited receiver (developed property) is slightly more than the \$46,000 threshold at \$47,285. The noise analysis should be updated during final design to determine if the cost is lower than the threshold for cost-effective noise mitigation.	Column labels will be revised.
ACTION	∀	B, C	A	∢	٨
COMMENT	There total area of private ownership estimated for the project adds up to 6.3 acres on page 71, and is shown as 2.9 acres on page 103 under the total estimated project cost. Please correct inconsistency.	New R/W acquisition will impact several residentially improved properties at northeast quadrant of Munds TI. R/W estimate will require updating.	The superimposed improvements for Project 089A CN 399 H4134 are out of date and should be revised to current roundabout concept (AECOM). Horizontal roadways also significantly shifted.	Suggest project team discuss concept of shifting east side noise barrier wall +/- 20' westerly. By doing so, the need to acquire about a dozen NOISE WALL-SOUND BARRIER CONTRACTS will not be required at final design. Nearest roadway improvements appear to be 80'-100' away. This shift would allow construction without need for TCEs, disruption and expense of private perimeter walls, landscaping and other private improvements and also facilitate future maintenance of the easterly side of the wall.	Table 48: Two columns in this table show design parameters used for the design of proposed I-17 in NB and SB directions. We recommend to mark the columns with texts such as "I-17 (NB)" and "I-17 (SB)".
SECTION/ PAGE	Pgs 71 & 103	Plan drawing #139	Plan drawing # 197 &199	Plan drawing #201, 203, 205	Page 92
COMM. NO.	5.1	5.2	5.3	5.4	6.1
REVIEWER	Dave Edwards (ADOT Right-of- Way)	Dave Edwards	Dave Edwards	Dave Edwards	Ashek Rana/ Paul Burch (ADOT Pavement Design)

ACTION CODE



ADOT Project No. 17 YV 298 H6960 01L Federal Project No. NH-017-B(AUC) I-17, Jct. SR 179 to I-40	o. 17 YV No. NH- to I-40	/ 298 H6960 0 017-B(AUC)		Will Comply Consultant/Designer to e ADOT Team to Evaluate No Further Action	Will Comply Consultant/Designer to evaluate ADOT Team to Evaluate No Further Action
REVIEWER	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
Ashek Rana/ Paul Burch	6.2	Page 92	Please replace the text "Regional Factor (Cordes Junction) with "Seasonal Variation Factor"	∢	Will comply.
Ashek Rana/ Paul Burch	6.3	Page 92	An option for "PCCP for Truck Climbing Lane" has been mentioned in the first paragraph. Please mention possible PCCP pavement section here in this paragraph instead of referring it to the "Final Geotechnical Report" for this project.	∢	The last sentence will be revised to read "A rigid pavement section using 13" of PCCP over 4" of AB would also meet the required SN for the truck climbing lane; however the AC section is recommended to avoid a pavement joint within the roadway."
Ashek Rana/ Paul Burch	6.4	Page 103	Table 53- Recommend to use "ASPHALTIC CONCRETE - End Product (3/4) Special Mix" instead of "ASPHALTIC CONCRETE - End Product (3/4)"	4	Will comply.
Ashek Rana/ Paul Burch	6.5	Page 103	Table 53- Use \$11,000 per Lane Mile as AC Pavement Smoothness Incentive.	A	Will comply.
Ashek Rana/ Paul Burch	9.9	Appendix B	Please make appropriate changes in the light of suggestions above	A	Labels on pavement structural sections will be modified.
William Downes/David Benton/Pe-shen Yang (ADOT Bridge)	7.1	Pg. vi	Why is there no preliminary bridge selection report being done?	D	Bridge selection reports are not included in the DCR scope. Anticipate completion of BSRs with 30% design.
William Downes/David Benton/Pe-shen Yang	7.2	Pg. 13 Table 9 – Existing Structures	Please change the date of the last inspection on all bridges to 2010	4	Will comply.

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REMARKS / RESPONSE	Will comply.	Will comply.	Will comply.	Will comply.	Will comply.
ACTION	∢	⋖	4	4	∢
COMMENT	Structure 1055 is currently being replaced. The new structure number is 2937. Structure 628 is currently being replaced. The new structure number is 2936. The first inspection has not been done yet. Please add a note to the structures saying that the bridges are being replaced and giving the new structure numbers. Please also reflect new structure #\$ on pg. 87.	On structure 2555 please change the Mile post to 339.37, and the width to 54.1 feet.	On structure 2556 please change the Mile post to 339.37, the width to 41.3 feet and the vertical clearance to 16'-10".	10 of these structures are included in bridge inventory and have structure numbers and bridge inspections. Please add the structure numbers and complete milepost: str 5759 at mp 298.65, str 6562 at mp 299.85, str 6563 at mp 302.43; str 6561 at mp 307.13, str 5761 at mp 322.44, str 5762 at mp 323.41, str 5763 at 330.32, str 5764 at mp 330.47, str 5765 at mp 334.30, and str 5766 at mp 337.81.	Please change vertical clearance on structure 536 to 13'-2"; on structure 626 to 15'-9"; on structure 1653 to 16'-10" and the width to 42';
SECTION/ PAGE	Pg. 13 Table 9 – Existing Structures	Pg. 13 Table 9 – Existing Structures	Pg. 13 Table 9 – Existing Structures	Pg. 10 Table 5 – Existing major Drainage Pipes and Culverts	Pg. 13 Table 9 – Existing Structures
COMM. NO.	7.3	7.4	7.5	7.6	7.7
REVIEWER	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang

ACTION CODE A Will Comply B Consultant/Designer to evaluate C ADOT Team to Evaluate D No Further Action



ON REMARKS / RESPONSE	Will comply.	Will comply.	Will comply.	Will comply.	This structure is listed in a separate project 040 CN 183 H7586 01L, I-40 –Bellemont to Winona.	Will comply.	Will comply.
ACTION	∢	∀	٧	¥	Q	A	A
COMMENT	Please change bridge width on structure 1654 to 42'-2" and on structure 617 to 42'-4"	Please change bridge location name to Woods Canyon TI UP or place in parenthesis official name of bridge is "Woods canyon TI UP" on structure 1655. Please also change it in Underpass Bridges section pg 14.	Please change vertical clearance on structure 627 to 14'-3"; on structure 1583 to 17'-6"; on structure 1056 to 15'-2"; on structure 2090 to 15'-9"; on structure 632 to 16'-1";	Please change MP on structure 1657 to 322.01	Although it is mentioned that the ramp (structure 2554) will not be impacted by the widening, the ramp should be listed as an existing structure within the project limits.	Please change first line to say that 10 Pipes and box culverts appear in the ADOT Bridge Inventory (currently says 9).	Please update ** below table 44, stating that Woods Canyon TI UP (Fox Ranch TI UP) rail has been upgraded with concrete parapet and fence.
SECTION/ PAGE	Pg. 13 Table 9 – Existing Structures	Pg. 13 Table 9 – Existing Structures	Pg. 13 Table 9 – Existing Structures	Pg. 13 Table 9 – Existing Structures	Pg. 13 Table 9 – Existing Structures	Pg. 14 Pipes and Box Culverts	Pg. 87
COMM. NO.	7.8	6.7	7.10	7.11	7.12	7.13	7.14
REVIEWER	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang	William Downes/David Benton/Pe-shen Yang

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REMARKS / RESPONSE	Will revise recommendation.	Agreed. No action required.	See note on page 1.	See note on page 1.	See note on page 1.
ACTION	∢	٥	4	<	∢
COMMENT	Revise recommendation to deck replacement for NB bridges. Currently NB deck is exhibiting larger significant spalls. SB bridge may require a deck replacement option, based on past experience with mitigation of NB deck and current SB deck soffit exhibiting cracking and efflorescence.	Engineering Survey has completed 1"=100' survey and mapping on I-17 from MP 298 to MP 340 in 2008	We did a lot of work with Game and Fish and the results are not really evident in the DCR. We were planning to incorporate a wildlife accident reduction plan and include the Game and Fish data from the movement studies that were completed. Did I miss it or is this information all left out intentionally? Was it all going to be added in to the final DCR? If so, is that giving the information an adequate review? Also, I noticed placeholders for the wildlife crossing structures, but no costs associated. If this is going to carry forward without any costs how will this be worked in to design?	I noticed wildlife crossings and wildlife fencing are called out in the estimated cost but no cost is included here. At which point will these costs be included? In the final DCR following the Wildlife Reduction Study?	The Department recommends that wildlife crossings be included in the DCR, as well as the EA, to be consistent between and among planning documents.
SECTION/ PAGE	Pg 88 Willard Springs TI UP	Y/N	General	General	General
COMM. NO.	7.15	8.1	9.1	10.1	11.1
REVIEWER	William Downes/David Benton/Pe-shen Yang	Chong-Tai Chyan (ADOT P&M)	Justin White (ADOT EPG)	Jeff Gagnon (Arizona Game & Fish Dept.)	Andi Rogers (Arizona Game & Fish Dept.)

ACTION CODE A Will Comply B Consultant/Designer to evaluate C ADOT Team to Evaluate D No Further Action



REVIEWER	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
Andi Rogers	11.2	General	Under Environmental issues is states "Coordinate with AGFD about wildlife crossing and corridor connectivity" Consider another bullet, or combine the previous with the following "Incorporate wildlife crossings and fencing locations and costs identified in the EA and Wildlife Accident Reduction Study" Question: At what time will the costs be incorporated into the Estimated Costs section (Chapter 6)?	∢	See note on page 1.
Jim Davis (City of Flagstaff Utilities)	12.1	1.5.3	The major existing utilities for the I-17 corridor presented in Table 4 (Under City of Flagstaff) The 30" water main that crosses under I-17 @ Lake Mary Road (MP 339.8) is correct. No Update is needed.	Q	No action required.
Jim Davis	12.2	1.5.3	The 8" sewer main that crosses under I-17 @ Lake Mary Road (MP 339.8) is incorrect and needs to be changed to a 12" water main. Update Table 4	٧	Will comply.
Jim Davis	12.3	1.5.3	There is an 18" DIP water main that crosses under I-17 North of J.W. Powell Bivd. (MP 337.89) Update table 4	4	Will comply.
Jim Davis	12.4	1.5.3	There is an 6" ACP water main that crosses under I-17 South of J.W. Powell Blvd. (MP 337.89) Update table 4	٧	Will comply.
Bret Petersen/ Martin Ince/ Jeff Bauman (City of Flagstaff)	13.1	General	Dark-Sky consideration should be given in the development of lighting plans.	4	The following text will be added to Section 4.19: "The design requirement for light level is 0.6 foot-candles. Full cutoff fixtures with high-pressure sodium lamps should be used to comply with dark sky requirements and match the existing lighting at the I-17/I-40 system TI."

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SUMMARY OF COMMENTS ADOT Project No. 17 YV 298 H6960 01L Federal Project No. NH-017-B(AUC) I-17, Jct. SR 179 to I-40







REMARKS / RESPONSE	Aesthetic treatments will be considered during final design.	The implementation plan will make recommendations for construction packages based on traffic operational needs.	ADOT will apply its landscaping standards to the median within its right-of-way. Trees will be preserved where reasonable; however, the roadway design must be based on safety and maintenance elements, including clear zone, snow storage, and icing due to shadows. Specific trees can be protected during construction and the contractor can be prohibited from using the entire median and needlessly removing trees.	Steeper slopes may be considered during final design. The DCR takes a conservative approach for the purposes of environmental clearance limits and cost estimating.
ACTION	O	Q	O	B/C
COMMENT	Design themes should include imbedded aesthetic solutions in the engineering design.	Support for roadway widening to no more than 3-lanes in each direction, and construction only when traffic volumes deem that necessary.	Use construction conservation measures, such as 'Tree Protection Zones' and designated construction drives, within highway medians. Do not use the whole median as a construction site; tree conservation is imperative.	Decrease cut and fill widths with creative solutions, such as engineered rock retaining walls with appropriate steel support. Blend contours for natural appearance. Established tree preservation is imperative. (See "Grading" – Design Standards, Appendix 3, p. 7)
SECTION/ PAGE	General	General		
COMM. NO.	13.2	13.3	14.1	14.2
REVIEWER	Bret Peterson/ Martin Ince/ Jeff Bauman (City of Flagstaff)	Bret Peterson/ Martin Ince/ Jeff Bauman (City of Flagstaff)	(City of Flagstaff Environmental/ Open Space)	(City of Flagstaff Environmental/ Open Space)

ACTION CODE A Will Comply B Consultant/Designer to evaluate C ADOT Team to Evaluate D No Further Action



ION REMARKS / RESPONSE	Inside vs. outside widening and other referenced issues were evaluated in the development of the design concept.	The study team is not aware of a planned FUTS trail at this location. However, the structure will provide a 30-foot wide opening.	60% plans for SR 89A project are being developed. A note referencing the SR 89A project has been added to the I-17 Final DCR plan sheet.A FUTS trail will be accommodated in the design concept as noted in Section 4.12.12. Full cutoff fixtures with high-pressure sodium lamps as recommended comply with dark sky requirements. Text will be added to the Final DCR to expand on dark skies design guidelines and advise the final designer to coordinate with local observatories.	The CBC will be preserved as-is. However, the CBC is not recommended for trail use as discussed in Section 4.21.
ACTION			< Ω Ω	Δ
COMMENT	Proposed "areas of concern" report (see Appendix 1) will articulate that some additional lane width should be built IN towards the median, and some should be built OUT towards the ROW, to respect the terrain and old-growth tree stands, minimize impact to existing median and length of median barrier, FUTS connectivity, dark-skies complaint lighting, noise mitigation.	New single-span bridges (length/width) should accommodate vehicular travel as well as a FUTS trail crossing.	Coordinate and depict the New Two-Span bridge with current proposed 60% plans for the SB ramps round-about and realignment of SR 89-A. New bridge should also be wide enough to allow bicycle and pedestrian dedicated travel way. Complete interchange lighting, as recommended, is not believed to be dark-skies compliant. Need to employ dark skies illumination shielding and lighting at TI's and along highway. Consult with the Naval Observatory and/or the City of Flagstaff for lumen calculations.	Existing 2 – 10'x10' CBC: Preserve existing CBC or replace with new single-span bridge to accommodate FUTS trail system connectivity in the region.
SECTION/ PAGE	STATION (South to North) 7165+00 – 7337+98	7165+00	7236+00	7259+50
COMM.	14.3	14.4	14.5	14.6
REVIEWER	(City of Flagstaff Environmental/ Open Space)	(City of Flagstaff Environmental/ Open Space)	(City of Flagstaff Environmental/ Open Space)	(City of Flagstaff Environmental/ Open Space)

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SUMMARY OF COMMENTS
ADOT Project No. 17 YV 298 H6960 01L
Federal Project No. NH-017-B(AUC)
I-17, Jct. SR 179 to I-40





REMARKS / RESPONSE	Aesthetics will be considered during final design.	Aesthetics will be considered during final design. Landscape treatment will be addressed during final design.
ACTION	۵	Q
COMMENT	(a) Begin New Noise Barrier on east side of I-17, extends approximately 1.1 miles. The concept of imbedded aesthetics and options for this noise barrier shall be taken into consideration.	(a) Begin New Noise Barrier on west side of I-17, extends approximately 0.33 miles. The concept of imbedded aesthetics and options for this noise barrier shall be taken into consideration. Noise barriers – provide an opportunity to 'soften' the hardscape with landscape areas in front of the wall. Landscape material may also dampen noise. What will be the landscape treatment on both sides
SECTION/ PAGE	7274+00	7337+98
COMM.	14.7	14.8
REVIEWER	(City of Flagstaff Environmental/ Open Space)	(City of Flagstaff Environmental/ Open Space)

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REVIEWER	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
(City of Flagstaff Environmental/ Open Space)	14.9		 (a) Location of inside widening begins here and extends north to I-40. Throughout the length of the project, as well as within this segment, there is concern that the natural resources may be destroyed as a result of construction staging and disturbed areas, which, in turn, destroys the rural, alpine character of region as well as eliminating this natural Gateway to our community. Therefore, show "areas of limits of construction" as well as "areas of planned resource removal". (b) New Concrete Median Barrier extends 3.25 miles from STA 7189+82 to STA 7361+45, the concept of imbedded aesthetics and options for this barrier shall be taken into consideration. (c) It is not readily apparent what, if any, alternatives were considered/ evaluated for the typical roadway section between the JWP T.I. and I-40. The City of Flagstaff will not support the recommended concept, a continuous 120' paved section, without further analysis and asks that ADOT and its consultant evaluate and present at least one alternative solution for consideration. 	o o	 (a) Preliminary cut and fill lines are shown on plan sheets. (b) Aesthetics will be considered during final design. (c) Widening to the outside in this segment was eliminated as a potential alternative due to the following factors: ADOT's westerly right-of-way limit is between SB I-17 and Beulah Blvd. New right-of-way may be required from the City to accommodate outside widening and/or a 35,000 SF retaining wall would be required along I-17. Snow storage would need to be addressed. Widening toward the outside on the east side would move the northbound lanes closer to residential areas. Inside widening meets driver expectation for urban areas. Inside widening avoids the need to relocate multiple overhead utility transmission lines and reconstruct two sign structures.
(City of Flagstaff Environmental/ Open Space)	14.10		Establish wildlife corridor crossings as recommended by AZ Game & Fish.	4	Recommendations for potential wildlife crossings will be incorporated into the Final DCR.

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SUMMARY OF COMMENTS ADOT Project No. 17 YV 298 H6960 01L Federal Project No. NH-017-B(AUC) I-17, Jct. SR 179 to I-40



N REMARKS / RESPONSE	ADOT will apply its landscaping standards to the median within its right-of-way. Air quality is addressed in the environmental document.	Rockfall mitigation recommendations are included in the IDCR. Aesthetic mitigation may be included in the Draft EA; however, recommendations may be deferred to final design. The material removed during rockfall mitigation may not be viable for construction activities without additional processing and costs. There are more cost-effective construction procedures which can provide similar aesthetic results.
ACTION	۵	Ω
COMMENT	Establish a tree replacement policy of five for one ratio. This tree-replanting is done within and balanced across the I-17 corridor. Highway safety 'open' buffers are acknowledged, yet there is a need to incorporate national best practices and support the City of Flagstaff's commitment to reducing transportation based emissions.	Preserve rock outcroppings. When and if rock outcroppings are removed for construction, two options need to be considered: 1) re-use rock from these outcroppings for wall construction along highway, if walls are required; 2) re-use rock to face ramps or bridges, for contextual aesthetics and respect of place.
SECTION/ PAGE		
COMM. NO.	14.11	14.12
REVIEWER	(City of Flagstaff Environmental/ Open Space)	(City of Flagstaff Environmental/ Open Space)

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ACTION REMARKS / RESPONSE	propriately best practices to landscaping improvements during final design. O Db. Green Green Buffers Green trees le (as close to landscaping improvements during final design. Green Buffers ADDT and the Forest Service will apply best practices to landscaping improvements during final design. Green Buffers Green Buffers Green Buffers Green With fective.	thin the FMPO and provide input and feedback related to the provide input and feedback related to the project design, although they cannot develop or impose design standards for the Interstate. The Interstate is governed by the Manual on Uniform Traffic Control Devices (MUTCD) and design standards
COMMENT	Establish 50'-90' Green Buffers (Appendix 2) along each side of the highway. Studies show that appropriately installed tree buffers reduce sound by 6-10 Db. Green buffers improve the corridor in six ways: i. Sound absorption ii. Pollution absorption iii. Wind Barrier iv. Unique Sense of Place is preserved for Community Character v. Stormwater management vi. Carbon sequestration The parameters for appropriately installed Green Buffers are: b. Fairly dense with a mix of deciduous, evergreen trees and shrubs. c. 50-90' wide d. As close to the sound source as possible (as close to the highway as possible). e. One report established that a low wall partnered with thick stand of evergreens as being very effective.	The Flagstaff Region would like to establish Design Standards for all highway development within the FMPO boundaries, to establish and maintain the 'Gateways' as well as community character with current highways acting as 'scenic parkways'.
SECTION/ PAGE		
COMM.	14.13	14.14
REVIEWER	(City of Flagstaff Environmental/ Open Space)	(City of Flagstaff Environmental/ Open Space)

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SUMMARY OF COMMENTS
ADOT Project No. 17 YV 298 H6960 01L
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REMARKS / RESPONSE	The DCR describes the lighting recommendations, with fixtures that are dark-sky compliant. ADOT will continue to work with the stakeholders, including both observatories, during final design.	Proposed ITS elements would be very similar for all alternatives. The results of the evaluation matrix would not change if additional information on the ITS improvements was shown.	Will revise text.	Power availability is discussed in the subsequent DMS section and 4.19 Traffic Interchange Lighting. The City of Sedona's preference for dark-sky compliant lighting will be noted in section 4.19.	The text will be revised to indicate that existing towers should be used wherever possible for wireless communication.
ACTION	۵	Q	∢	D, A	A
COMMENT	Commit to dark-sky compliant lighting, in respect of the community's character and scientific needs of the U.S. Naval and Lowell Observatories.	I noticed variable message boards and other communications equipment and towers and other potential improvements being proposed in the IDCR but were not mentioned in the DEA. These should be described and the IDCR should reflect that these kinds of additional infrastructure that may be visible would have scenery impacts and some things may not be consistent with forest plan direction so the table comparing effects is not accurate.	These references should be sheep passage and not jeep.	Power is not available at the first 3 sites and is a long way from those sites. May want to change wording here. Interchange lighting at Sedona needs to meet night sky protection and be as minimal as possible to address protection of those values but meet safety needs.	References to new communication towers are not consistent with forest plan direction or policy where existing facilities should be utilized. There are several communication facilities along this corridor that could be utilized for wireless purposes without building new sites.
SECTION/ PAGE		Chap 3, page 38	Page 73 Chap 4	Page 93	Page 94
COMM. NO.	14.15	15.1	15.2	15.3	15.4
REVIEWER	(City of Flagstaff Environmental/ Open Space)	Judy Adams (CNF)			

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REVIEWER	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
	15.5	Appendix C, Part 1 of 6 STA5230 to 5255	There appears to be a section of road here that will be abandoned and needs obliteration note.	4	An obliteration note will be added.
	15.6	Appendix C, all sheets	Please add NF boundaries to the plan sheets.	Q	The plans reflect ADOT right-of-way limits. National Forest boundaries would be shown on right-of-way plans during final design.
	15.7	Appendix C, part 5 of 6, STA6616 to STA 6644	Will need to have coordination with Coconino County to revise their easement with the CNF, redescribe right of way and amend easement description/document.	Q	Right-of-way and easement coordination will occur during final design.
	15.8	Chap 4, page 81	There is an indication that aesthetics has not been included in slope design. There should be a statement somewhere in the DCR that rounding, warping, sculpting etc will be included in design to address aesthetic slope mitigations in the EA.	∀	The paragraph will be revised to: Slope flattening for vegetation establishment or aesthetics has not been included in this preliminary design. Visual mitigation measures stated in the Final EA, such as irregular cleaning limits, varying slope rates, rounding, warping and saving vegetation, will be implemented during final design.
Audra Merrick (ADOT Flagstaff District)			No comment.		
Bill Pederson (ADOT CCP)			No comment.		

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REMARKS / RESPONSE										
ACTION										
COMMENT	No comment.	No comment.	No comment.	No comment.	No comment.	No comment.	No comment.	No comment.	No comment.	No comment.
SECTION/ PAGE										
COMM. NO.										
REVIEWER	Debbie Mayfield (ADOT Priority Programming)	Fred Garcia (ADOT EPG)	George Wallace (ADOT SPMG)	J.J. Liu (ADOT Mat'ls, Geotech Ops)	Jim Wilson (ADOT Mat'ls Geotech Design)	John Eckhardt (ADOT R/W)	Kent Link (ADOT Regional Traffic)	Kevin Kozel (ADOT Predesign)	Layne Patton (FHWA R/W)	Mackenzie Kirby (ADOT CCP)







REVIEWER	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
Mark Poppe (ADOT Traffic Safety)			No comment.		
Michael Traubert (ADOT OES)			No comment.		
Myra Rothman (ADOT R/W)			No comment.		
Paul O'Brien (ADOT Predesign)			No comment.		
Prakash Kamdar (ADOT Predesign)			No comment.		
Rebecca Swiecki (FHWA)			No comment.		
Richard Moeur (ADOT Traffic Design)			No comment.		
Sarah Lantz (AGFD)			No comment.		
Shannon Ford (ADOT EPG)			No comment.		

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REMARKS / RESPONSE										
ACTION										
COMMENT	No comment.	No comment.	No comment.	No comment.	No comments received.	No comments received.	No comments received.	No comments received.	No comments received.	No comments received.
SECTION/ PAGE										
COMM.										
REVIEWER	Syed Alam (ADOT Drainage)	Tim Dalegowski (Coconino County)	Vince Li (ADOT SPMG)	Wayne Smith (ADOT U&RR)	Cecilia Overby (CNF)	Chris Bridges (Yavapai Co)	Chris Cooper (ADOT Roadway)	Chuck Gillick (ADOT Distr. Maintenance)	David Wessel (FMPO)	Greg Gentsch (ADOT Prescott District)

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REVIEWER	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
Hari Khanna (ADOT PPMS)			No comments received.		
Heather Provencio (CNF)			No comments received.		
James Zumpf (ADOT MPD)			No comments received.		
Jon Lovell (ADOT TOC)			No comments received.		
Karen Williams (AG's office)			No comments received.		
Kurt Harris (ADOT Flagstaff District)	_		No comments received.		
Laurie Hawkins (ADOT R/W)			No comments received.		
LeRoy Brady (ADOT Roadside Development)			No comments received.		
Lynn (Ungyo) Sugiyama (ADOT Priority Programming)			No comments received.		

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Mary Viparina Roadway) No comments received. Mike Conner (Coconino Co Parks & Rec) No comments received. Mike Conner (Coconino Co Parks & Rec) No comments received. Mike Claubrailler (Plagstaff Distr. Maint.) No comments received. Reed Henry (ADOT Prescott (ADOT Prescott (ADOT Recoult ADOT Received. No comments received. Richard (ADOT Roadway) No comments received. Richard (AGDT Rwy) No comments received. Saraula Hedwall (USFWS) No comments received. Steve Hull (ADOT C&S) No comments received.	REVIEWER	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE
	Mary Viparina (ADOT Roadway)			No comments received.		
	Mike Conner (Coconino Co Parks & Rec)			No comments received.		
	Mike Gutzwiller (Flagstaff Distr. Maint.)			No comments received.		
	Randy Blake (ADOT Prescott District)			No comments received.		
	Reed Henry (ADOT Roadway)			No comments received.		
	Richard Erickson (ADOT R.W)			No comments received.		
	Sarah Lantz (AGFD)			No comments received.		
	Shaula Hedwall (USFWS)			No comments received.		
	Steve Hull (ADOT C&S)			No comments received.		









REVIEWER COMM. SECTION/ NO. PAGE	COMM. NO.	SECTION/ PAGE	COMMENT	ACTION	REMARKS / RESPONSE	
Steve Monroe (ADOT Flagstaff District)			No comments received.			1
Teresa Welborn (ADOT CCP)			No comments received.			
Thor Anderson (ADOT EPG)			No comments received.			
Todd Williams (ADOT OES)			No comments received.			